

# Alpine Bolter Miner ABM 12

The ABM 12 is designed for rapid roadway development in lower seams reaching from as low as 1.5 m up to 3.7 m seam height, in which it achieves high advance rates for efficient longwall development and coal production. The field-proven 270 kW cutting unit is mounted on a slide to enable simultaneous cutting and bolting. Due to the fully shielded cutting area, an optimum of comfort and safety for the operator is provided. VOEST-ALPINE's objective is a machine which gives maximum advance rates at lower cost per ton.



## Technical data ABM 12\*

### General:

Overall length	approx. 12300 mm
Machine width	
for transport (retracted drum)	5600/6200 mm
overall width in operation	6600/7200 mm
max. width over side bumper	approx. 5080 mm
Machine height	13200 mm
Total mass (with bolters)	96.3 t
Total installed power	546 kW

### Cutting System:

Shape of profile	rectangular
Working height	1.5-3.7 m
Working width	6.6/7.2 m
Retraction facility on either side	0.5 m
Drum diameter	1200 mm
Drum revolutions	33.2 rpm
Cutting speed	2.08 m/s
Max. vertical cutting force	300 kN
Cutting power	270 kW
Sumping aid (longitudinal slide)	1000 mm

### Bolting System:

Distance drill rig to face	4.1 m
No. of roof bolters	2
Bolt length (single pass) cutting height minus 0.5 m	
Drilling method	rotating

### Support Canopy:

Max. force supplied to roof	2 x 380 kN
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### Loading System:

Loading device	2 spinners
Loading capacity	25 t/min
Loading width	full cutting width
Installed power (electric)	2 x 36 kW

### Conveying System:

Conveyor width	760 mm
Chain speed	2.2 m/s
Installed power	2 x 36 kW
Discharge height from floor level:	
Minimum	600 mm
Maximum	3000 mm

### Tramming System:

Tramming speed	5-11 m/min
Ground clearance	180 mm
Ground pressure (with tilting device, bolters and 6 m drum)	28 N/cm <sup>2</sup>
Track pulling force	2 x 300 kN
Width of track chain	570 mm

### Hydraulic System:

Motor for pump drive	132 kW
No. of hydraulic pumps	2
Maximum pressure	250 bar

### Electric System:

Voltage	1000 V
Frequency	50 Hz

### Radio Remote Control and

Auto Cutting Cycle	PEMPEK System
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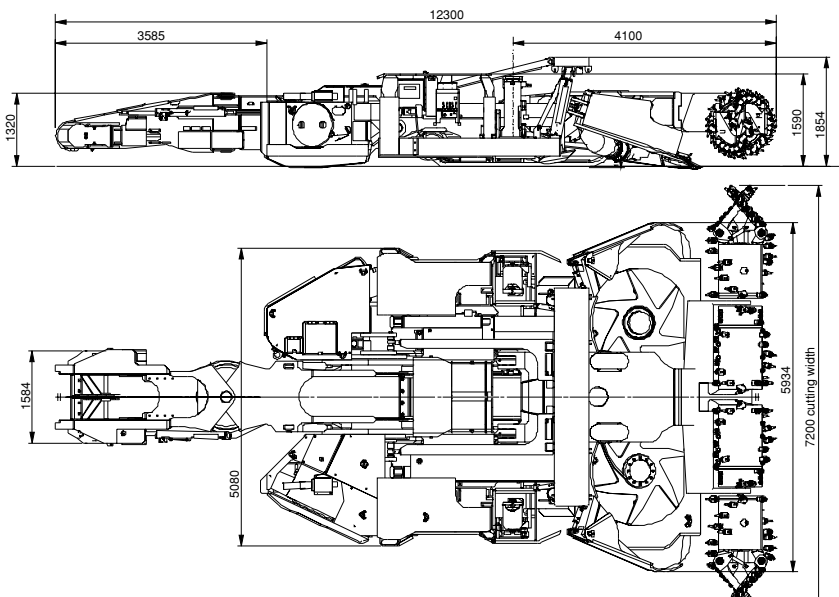
### Dust Suppression:

integrated high pressure dust suppression	
integrated dust collection and scrubber	
Installed power	45 kW

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**ABM 12 features not available on other development machines**



- Simultaneous cutting and bolting operation with on board roofbolters.
- High cutting capacity with 270 kW motors.
- Cutting-loading-conveying is one independent unit, placed on a longitudinal slide in order to achieve best loading efficiency of up to 25 tons/min.
- Integrated high-pressure-water dust suppression system and on board scrubber.
- Fully supported roof for safety of operators due to support canopy behind the cutterdrum.
- Shielded bolting platforms for optimum operator safety and comfort.
- Integrated radio-remote and control system.
- Electronic controlled sump and shear movement to optimize the cutting sequence.
- No movements of crawler tracks during sumping and cutting action – enhanced stability due to canopy and smooth floor treatment.
- Automatic cutting cycle gives optimum operation and machine utilization.
- Machine health monitoring / data logging (optional)